Claims 1-13 (Cancelled).

14. (Currently Amended): A processor-implemented method of dynamically creating a verification value for a transaction, the method comprising:

creating, in response to the transaction involving a payment device, a base record having a first data value and a second data value where the second data value is an application transaction counter value;

splitting the base record into a first field and a second field;

encrypting the first field using a first encryption key;

performing an exclusive-OR (XOR) operation on the encrypted first field and the second field to produce a first result;

encrypting the first result using a second encryption key to produce a second result;

decrypting the second result using a decryption key to produce a third result;

encrypting the third result using a third encryption key to produce a fourth result;

sequentially extracting each value between 0 and 9 from the most-significant digit to the least-significant digit of the fourth result to produce a fifth result;

sequentially extracting and subtracting hexadecimal A from each value between hexadecimal A and hexadecimal F from the most-significant digit to the least-significant digit of the fourth result to produce the sixth result;

concatenating the fifth result and the sixth result to produce a seventh result; and

selecting one or more values from the seventh result as a verification value for the transaction.

15. (Original): The method of claim 14 wherein the first encryption key, the second encryption key, and the third encryption key are equivalent.

16.   (Original): The method of claim 14 wherein the decryption key differs from the first encryption key.

17.   (Original): The method of claim 14 wherein the decryption key differs from each of the first encryption key, the second encryption key, and the third encryption key.

18.   (Original): The method of claim 14 wherein the base record is 128-bits in length.

19.   (Original): The method of claim 14 wherein said first data value comprises: a primary account number for the payment service.

20.   (Original): The method of claim 14 wherein said first data value comprises: a unique identification number for the payment device.

21.   (Original): The method of claim 14 wherein said first data value comprises: a unique identification number for the service provider.

22.   (Cancelled).

23.   (Cancelled).

24.   (Cancelled).

25.   (Cancelled).

26.   (Currently Amended): The method of claim 14 wherein said first ~~verification~~ data value is derived from data further comprising:
      a service code which identifies the payment service; and
      an expiration date for the payment service.

27.   (Original): The method of claim 14 wherein the base record further comprises padding characters to extend the base record to a predetermined length.

28.   (Original): The method of claim 14 wherein the first encryption key, the second encryption key, the decryption key, and the third encryption key are derived from data residing on the payment device.

Claims 29-49 (Cancelled)